

CLAIMS:

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1. An electric lamp comprising a light-transmitting lamp vessel (1) which accommodates a light source (2),

wherein at least a part of the lamp vessel (2) is provided with a light-absorbing coating (3),

5 wherein the light-absorbing coating (3) includes a pigment which absorbs a part of the visible light,
characterized in that

the light-absorbing coating (3) comprises a network which can be obtained by conversion of an organically modified silane by means of a sol-gel process,

10 said organically modified silane being selected from the group formed by compounds of the following structural formula: $R^1Si(OR^{II})_3$,

wherein R^1 comprises an alkyl group or an aryl group,
and wherein R^{II} comprises an alkyl group.

15 2. An electric lamp as claimed in claim 1, characterized in that the R^1 group comprises CH_3 or C_6H_5 .

a 3. An electric lamp as claimed in claim 1 ~~or 2~~, characterized in that the R^{II} group comprises CH_3 or C_2H_5 .

20 a 4. An electric lamp as claimed in claim 1 ~~or 2~~, characterized in that an average diameter d_p of the pigment is $d_p \leq 100$ nm.

a 5. An electric lamp as claimed in claim 1 ~~or 2~~, characterized in that the thickness 25 t_c of the light-absorbing coating (3) is $t_c \geq 1 \mu m$.

a 6. An electric lamp as claimed in claim 1 ~~or 2~~, characterized in that silica particles having a diameter $d \leq 50$ nm are incorporated in the network.

a 7. An electric lamp as claimed in claim 1 or 2, characterized in that the pigment is an inorganic pigment.

8. An electric lamp as claimed in claim 7, characterized in that the pigment is selected from the group formed by iron oxide, iron oxide doped with phosphor, zinc-iron oxide, cobalt aluminate, neodymium oxide, bismuth vanadate, zirconium praseodymium silicate or mixtures thereof.

9. An electric lamp as claimed in claim 8, characterized in that the pigment is formed by a mixture of iron oxide and bismuth vanadate or by a mixture of iron oxide doped with phosphor and bismuth vanadate.



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